

# Munitions Handling

*During Deployed Operations*





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Captured enemy ammunition abounds in our current theaters of operation. Leaders at all levels must understand the proper procedures to react, plan and execute CEA operations. Units must incorporate risk management into munitions handling operations to reduce the inherent risk associated with these missions.

# CHAPTER. 1

## CAPTURED ENEMY AMMUNITION (CEA) OPERATIONS

### Chp. 1

Captured enemy ammunition abounds in our current theaters of operation. Leaders at all levels must understand the proper procedures to react, plan and execute CEA operations. Units must incorporate risk management into munitions handling operations to reduce the inherent risk associated with these missions.



# INTRODUCTION

Together Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) constitute the largest CEA Operations conducted since WW II. CEA operations are inherently dangerous thus the collection, transportation and destruction of CEA present a unique challenge for our forces. Commanders at all levels must understand that they are accepting risk when conducting CEA operations. Careful planning and risk management along with the use of trained personnel will help mitigate the hazards of CEA Operations.

## PURPOSE

To provide a quick procedural reference for commanders and leaders to safeguard forces involved in CEA operations. CEA operations include the initial discovery, identification, collection, transportation, and storage of CEA. It is key to understand that as a general rule no one unit is manned or equipped to conduct independent CEA operations.

## OBJECTIVES

1. To educate and establish awareness of CEA hazards and proper handling procedures.
2. To provide guidance for planning and executing CEA operations.

# REFERENCES

1. FM 21-16, Unexploded Ordnance(UXO) Procedures, 30 Aug 94
2. FM 4-30.13, Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers, 1 Mar 01
3. DA Pam 385-64, Ammunition and Explosive Safety Standards. Dated 15 Dec 99
4. EOD Technical Division Iraq Ordnance ID Guide "Green book", Jan 2004 [For other than EOD Use]
5. Handbook of Ammunition Used in Afghanistan and Surrounding Areas. March 2002, REV 2
6. Handbook of Ammunition Used in Iraq and Surrounding Areas. May 2004, REV 2
7. Army Safety Policy Memorandum DTD 28 June 2004

NOTE: References 4, 5, 6 contain pictures to help identify CEA, and also contain basic safety cautions for each class of munitions including missiles, mines, and mortars. Reference 4 may be obtained by contacting the EOD Technical Center, Indianhead, MD, at DSN 354-6890 or (301) 744-6890, or at <https://naveodtechdiv.navsea.navy.mil> . References 5 & 6 may be obtained by submitting request form at [http://www.pica.army.mil/picaeod/new\\_page\\_6.htm](http://www.pica.army.mil/picaeod/new_page_6.htm) or by contacting the Foreign Ordnance Branch at DSN 880-7645 / Commercial 973-724-7645 or the following e-mail address [eodpubrequest@pica.army.mil](mailto:eodpubrequest@pica.army.mil)

# DEFINITIONS

**1. Unexploded ordnance (UXO)** is any munitions, weapons delivery system, or ordnance item that contains explosives, propellants, and chemical agents that have been armed or otherwise prepared for action and launched, placed, fired, or released in such a way that they cause hazards, and/or that remain unexploded either through malfunction or design. Treat items that have been involved in an accident or event which may have caused damage internally or externally as a Unexploded Ordnance. This includes items which have been involved in a fire, received damage fragment/bullet or were subjected to a mechanical event such as explosive or hard impact of any kind.

Note: UXOs are an EOD Mission only. Do not touch or move a suspect UXO; MARK the area, REPORT UXO to your Higher HQ (IAW established procedure), safeguard personnel from UXOs.

**2. Improvised Explosive Device (IED)** are any device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy incapacitate, harass or distract. It may incorporate military munitions and/or non-military components.

Note: Neutralization of IEDS is an EOD Mission only!  
Leaders are responsible for marking, reporting and safeguarding personnel from IEDs

**3. Captured enemy ammunitions (CEA)** is any captured unfired , Undamaged, foreign, NATO or US manufactured munitions now in the control of US or Coalition Forces.

## **RESPONSIBILITIES AND FUCTIONS**

Recovery and evacuation of CEA is a command responsibility at all echelons. It may be encountered during all phases of military operations and is commonly found during raid and patrol operations. Caches of CEA may be as small as one or two pieces of ordnance or as large as several thousand pieces of ordnance. Caches can be found in, schools, homes, mosques, hospitals, sewage systems or in farmers' fields. Large quantities of CEA may also be found in Ammunition Storage Points (ASPs) similar to our ASPs. Basic CEA planning and execution factors are the same regardless of the amount of CEA encountered. Commanders and Leaders at all levels must involve Explosive Ordnance Disposal (EOD) and trained ammunition handling specialists in the planning of CEA operations and should utilize them (when available) in the execution of CEA Operations.

### **1) Capturing Unit:**

The capturing unit is the first unit that discovers or captures enemy munitions. After reporting the CEA it is the capturing unit's responsibility to secure and safeguard the CEA until the unit receives disposition instructions. Capturing unit will:



## **DANGER**

All munitions found on the battlefield must be considered booby-trapped and extremely hazardous.

(SEE CHECKLIST 1)

- a)** Report Cache following SALUTE report format.
- b)** Make a tentative identification of the munitions (i.e. projectile, grenade or small arms) using references provided above.
- c)** Identify support required to secure or transport CEA.
- d)** Request disposition of CEA.



## **WARNING**

If positive identification or munitions condition cannot be made or high risk munitions are found units should immediately request EOD support through command channel

### **2) Security Force.**

Designated security force will safeguard all CEA until it is evacuated to a safe storage area. Provide security escort for vehicles transporting ammunition.

### **3) EOD Team.**

- a)** Provide additional assessment to determine the level of hazards associated with the CEA.
- b)** Destroy all items determined unsafe for transportation or storage.

### **4) QASAS/Ammunition Specialists (55B).**

Determine proper packaging, transportation, and storage requirements for CEA.

### **5) Transportation.**

Can be military or commercial type vehicles, CEA must be properly loaded and secured. Vehicles transporting ammunition are considered a high value target by the enemy.

# PLANNING AND EXECUTION OF CEA OPERATIONS

Captured Enemy Ammunition operations are inherently dangerous. Commanders accept extreme risk by conducting CEA operations without proper pre and post mission planning and training. Units that are tasked to conduct CEA operations must ensure personnel are trained to conduct CEA operations. Leaders responsible for CEA operations must use the Military Decision Making Process (MDMP) when planning and executing CEA operations. Risk assessment is critical to mitigate the hazards associated with CEA. When disposition is received to transport CEA to a collection point the responsible unit will execute the following actions:

## **1. Conduct deliberate mission planning.**

Ensure all key leaders are involved in the planning process. This may include support personnel not organic to your unit. (MPs, EOD, TC, Medical, QASAS, Ammunition Specialists and Interpreters)(SEE Checklist)

- a.** Ensure soldiers are trained in ammunition handling and transportation procedures.(See Checklist 2 for recommended 'training)
- b.** Determine and coordinate for EOD support.
- c.** Determine and coordinate transportation and packaging requirements.
- d.** Determine and coordinate medical.
- e.** Determine and coordinate linguist support.

- f.** Determine and coordinate security support.
- g.** Determine and coordinate convoy route from CEA site to storage facility.
- h.** Determine and coordinate for safe disposal area.
- i.** Determine a communications plan that takes into account the 100m stand-off distance required for EMR sensitive CEA.
- j.** Conduct leader recon if possible.
- k.** Conduct risk assessment and implement any mitigation ' procedures necessary to reduce hazards.
- l.** Develop a catastrophic event plan. This plan will outline what to do in the event of an accidental detonation. (Personnel accountability, rally point, MEDVAC procedures)

## **2. Execution of Deliberate CEA Operations.**

(See FIG 1 and Checklist 3) The designated senior person will be responsible for on site execution of the CEA mission and is responsible for ensuring the following actions occur:

- a.** Establish a security perimeter. Security must be maintained at all times. If the CEA becomes unsecured then it will not be safe to ship.
- b.** Conduct communications check with higher command and medical support.

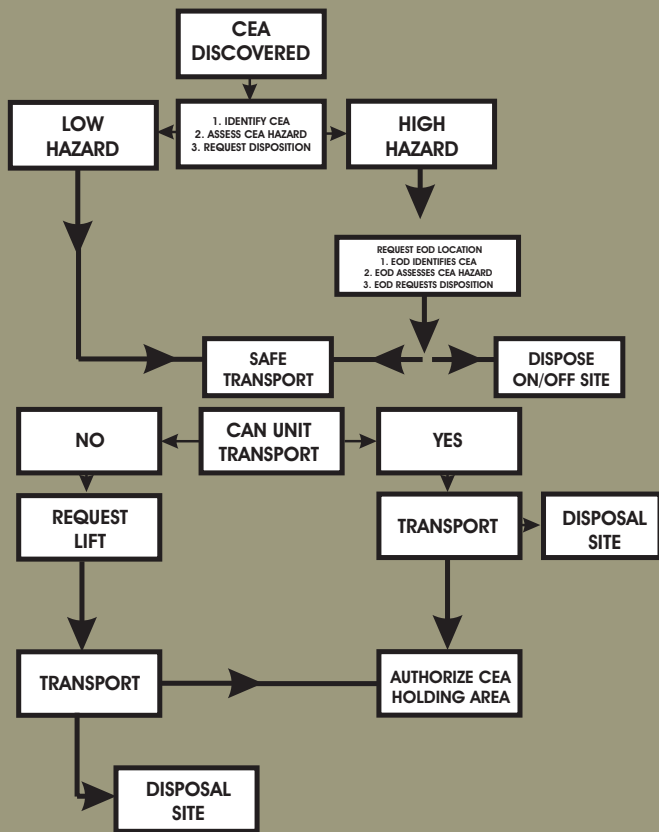
- c.** Conduct on-site safety briefing.
- d.** Have EOD inspect the CEA for munitions too hazardous for transportation. EOD will segregate out all unsafe munitions and prepare for disposal.
- e.** Personnel trained in ammunition handling will supervise the packaging and loading of the CEA onto vehicles.
- f.** Inspect blocking, bracing and securing munitions prior to moving any vehicle loaded with ammunition.
- g.** Conduct Convoy briefing.
- h.** Notify higher headquarters when departing CEA site and arriving at the authorized CEA storage location.

## **MUNITIONS RISK CATEGORIES AND DEFINITIONS**

Munitions risk categories are used when CEA is initially encountered. It is used to give leaders a guide to identify the risk associated with the handling of CEA. Items are categorized as High or Low risk munitions.

### **1. HIGH-RISK MUNITIONS:**

High Risk Munitions: High risk munitions should be handled by or under the direct supervision or guidance of EOD personnel. Leaders accept extreme risk in the



handling of high risk munitions without EOD support. This risk may lead to serious injury or death. High risk munitions are:

**a. Foreign large rockets and guided missiles.**

These munitions often have two-part liquid fuel rocket motors. The rocket fuels are extremely dangerous inhalation hazards. Often the oxidizer component is red fuming nitric acid, which is also corrosive. These fuel components will burst into flame as soon as they come in contact with each other. The warheads can be high explosives, toxic chemicals, flame, cluster munitions, or other hazardous payloads. Examples of these types of munitions are SCUD rockets and SA-2 ground-to-air missiles (flying telephone poles). Non-EOD forces should report the location of these items to EOD through command channels.

**b. Shaped charge warhead munitions.**

These munitions often are cone-shaped or cylindrical with a smaller-diameter spike in the center. Frequently, they also will have a fin assembly at their base. Stay clear of the front of HEAT warheads: Do Not change the environment of these munitions in any way. These munitions usually incorporate a “graze” element that can cause the item to function on even slight impacts. They also may have piezoelectric fuzes, which produce an electric current when force (vibration, temperature, etc.) is applied to a crystal

(like the needle on a record player). Do not touch the tip or spike on the front of these munitions. Examples of these items are rocket-propelled grenades (RPGs) or 125 mm Russian HEAT (high explosive anti-tank) rounds.

#### **c. White phosphorous (WP) or Incendiary munitions.**

If you see white smoke coming from a munitions item, sound the alarm and immediately evacuate the area. White phosphorous ignites immediately when exposed to air and produces clouds of white smoke. The munitions will get warm as the WP burns and, in time, will cook-off the high explosives busters inside the munitions, scattering WP and creating additional fires. If you get WP on your skin, immediately submerge the affected area in water. White phosphorous can be found in bombs, projectiles, grenades, and rocket warheads. The munitions generally will be color-coded or marked to indicate the presence of WP. Several explosives accidents have occurred in Iraq due to leaking WP munitions, especially Jordanian WP hand grenades. The pamphlets listed in the reference section of this guide contain Russian, Arabic, and Chinese markings to help identify these types of munitions.

#### **d. Foreign mortar ammunitions.**

Some foreign mortar ammunitions have only one safety mechanism—a pull ring that is removed before

dropping the round down a tube. If the pull ring is removed, there is no other safety mechanism and the round is armed and dangerous. Even slight movement can initiate the round.

#### **e. Mines.**

Mines have a variety of fuzing systems including (but not limited to) mechanical, electrical, chemical, acoustic, seismic, and magnetic. Mines may have more than one fuzing system. Some anti-personnel mines are “bounding,” meaning they propel an explosives charge 4 to 6 feet high before detonating. Examples are Italian “Valmara” anti-personnel mines and Russian OZM-series mines.

#### **f. Chemical Munitions.**

If you see any munitions with a “Green Band”- or that shows signs of liquid leakage of any kind personnel need to back off and contact EOD.

## **2. LOW RISK MUNITIONS:**

Low Risk munitions are hazardous but do not require direct supervision of EOD personnel. However, personnel handling these munitions must adhere to proper handling and transportation safety procedures.

#### **a. Packaged U.S. manufactured or NATO block munitions.**

These munitions typically have two or more independent safeties.

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**b. Unfuzed bombs or projectiles.**

While there are no safeties on unfuzed bombs or projectiles, there also is not a system to initiate the munitions.

**c. Unfired artillery projectiles.**

Without touching the projectile, look for grooves in the rotating band. If there are no grooves, the projectile has not been fired. If grooves are present or if the rotating band has been removed, treat the item as UXO.

**d. Small arms ammunition.**

There is minimal hazard in handling up to 50 cal or 12.7 mm ammunition.

**e. Unfired fixed rounds.**

These are complete rounds with the cartridge case, propellant, and primer all present. These rounds may be fuzed or unfuzed. Ensure these rounds are not WP, toxic chemical, or shaped charge rounds by looking for color-coding or round markings. Use the pamphlets referenced in this guide to correctly identify the type of round and markings. Protect the primer against inadvertent strikes by covering it with cardboard or other protective material. Examples of these are tank rounds, anti-aircraft artillery munitions and small and medium artillery ammunition.

### 3. HIGH/LOW RISK CONSIDERATIONS

Units conducting CEA categorization/ assessment should understand that extreme risk is accepted when CEA assessment is conducted without direct EOD supervision. When conducting CEA categorization (without EOD) leaders should:

- a.** Ensure personnel conducting assessment operations are trained to positively identify the ammunition by type.
- b.** Understand that if munitions cannot be positively identified they should be treated as high risk munitions.
- c.** Ensure that assessment of unpackaged munitions must be conducted without handling of munitions until positive risk category is determined.
- d.** Understand that High-risk munitions should only be handled under the direct supervision of EOD personnel.
- e.** Will use the below listed text along with the references listed in this publication to identify and classify munitions as high or low risk handling hazards.

## AMMUNITION HANDLING/ TRANSPORTATION GUIDANCE

### 1. GENERAL SAFETY:

During normal ammunition transportation and handling operations all personnel engaged in operations are trained and qualified to perform their assigned duties. However due to the large quantity of CEA being

encountered and the limited availability of trained personnel CEA operations are being conducted by personnel who lack the formalized training and certifications. Additionally, CEA operations include ammo that would not normally be transported and thus there are no formal requirements. Leaders should ensure personnel involved in CEA handling and transportation are at a minimum familiar with the procedures outline in this chapter before conducting CEA operations. The following procedures apply to all CEA ammunition handling and transportation operations.

**a.** Improvised Explosive Devices (IED) and Unexploded Ordnance (UXO) are not classified as CEA. Do not touch or move a suspect IED or UXO. Immediately mark and report to EOD through command channels.

**b.** The hazards of CEA operations will be reduced by having EOD personnel on-site to perform initial munitions assessment.

**c.** SURVEY THE AREA! Do not get tunnel vision—caches of CEA in plain sight might be a decoy. Keep your operational awareness on high.

**d.** Take booby trap precautions for all CEA found. Munitions may conceal or be part of the booby trap. If you see wires leading to the munitions, back away carefully. DO NOT TOUCH ANYTHING! Do not cut electrical wires or taut wires, and do not tighten slack wires. Mark, report and safeguard the area.

**e.** Do not use any radio or broadcasting devices, including cellular telephones, within 100 meters of

CEA. Radio frequency transmissions can create a small electrical current in igniter circuits in rocket motors or in electric fuzing mechanisms. Most of these circuits are designed to function with low current levels.

**f.** Take precautions against static electricity discharge from your hands. If you must handle unpackaged munitions, neutralize any static discharge you may have built up by grabbing a grounded metallic object or touching bare skin to the ground for several seconds. Touching a tracked or wheeled vehicle **WILL NOT** discharge the static electricity.

**g.** While moving heavy munitions ensure you use proper lifting techniques.

**h.** Wear Personal Protective Equipment (PPE) during all CEA Operations to include Inspecting, Packaging, loading or transporting. Minimum PPE will include Kevlar helmet, Interceptor body armor and ballistic eye protection.

**i.** Ammunition and explosives must be handled carefully. Improper, rough, or careless handling may cause accidental detonation.

**j.** No smoking within 50 feet of CEA.

**k.** Do not run vehicle engines while loading and off loading CEA.

**l.** Vehicles transporting CEA will have a serviceable fire extinguisher.

**m.** White phosphorus/incendiary munitions will not be transported with other munitions.

**n.** The number of personnel engaged in ammunition and explosive handling procedures should be limited to the personnel required to conduct safe and efficient operations.

**o.** Only vehicles actively involved in loading and unloading procedures will be present at the storage or demolitions area. All other vehicles should be located in a designated vehicle parking area.

**p.** Medical and supervisory personnel will not be engaged in loading and unloading of CEA.

**q.** Use gloves when handling CEA, CEA may become very hot to the touch due to the sun's radiant heating. CEA munitions and containers may have sharp edges.

**r.** Beware of snakes and insects in and around CEA items.

**s.** Clear CEA path of tripping hazards prior to moving CEA munitions.

**t.** Keep ammo storage and demolition ranges free of trash. It presents a fire hazard and unsafe working conditions for personnel.

**u.** Personnel will not ride in cargo area containing ammunition.

## **2. AMMUNITION TRANSPORTATION CATEGORIZATION:**

Ammunition transportation requirements are

determined by first categorizing the ammo to be transported. This determination should be conducted by EOD personnel only. Determination of ammo category by other than EOD personnel can lead to improper handling and transportation requirements resulting in possible accident or injury. Ammunition transportation categories should not be confused with Munitions Hazard Categories. The three ammo transportation categories are:

- a.** Extremely Unsafe Ammo: Ammunition that is extremely sensitive and/or unstable.
- b.** Unsafe Ammo: Ammunition that is unstable and sensitive. Ammunition defined above as High Risk will generally be as treated as Unsafe Ammo.
- c.** SAFE Ammo: Ammunition that is stable and generally good condition and will not be affected by normal ammunition handling. Ammunition defined above as Low Risk will generally be as treated as Safe Ammo.

### **3. TRANSPORTATION GUIDANCE BY CATEGORY**

#### **a. Extremely Unsafe Ammo:**

- (1.)** Handling and transportation is not recommended. Items should be detonated in place.
- (2.)** If handling or transportation is required it will only be conducted by or under the direct supervision of EOD personnel.
- (3.)** Transportation requirements will be

determined by EOD and should at a minimum be transported IAW the standard listed for Unsafe Ammo.

**(4.)** Do not transport items from other ammo transportation categories in the same area or vehicle.

**b. Unsafe Ammo:**

**(1.)** Should be transported the minimum allowable distance in order to conduct disposal or limited storage.

**(2.)** May be stored awaiting demolitions but storage should never exceed 72 hours.

**(3.)** Route from the collection point to the CEA demolition pit, trench or AHA should have gentle curves and be fairly smooth

**(4.)** Limit speed.

**(5.)** Keep the vehicle crew to the minimum, i.e., driver and track commander.

**(6.)** Handling of unsafe ammo should be kept to a minimum.

**(7.)** Unsafe items will not be transported in tactical vehicles.

**(8.)** Personnel will not ride in cargo area containing ammunition.

**(9.)** Unsafe ammo should be transported in a

trailer prepared by for transportation of  
CEA. **(See CEA Support Trailers)**

**(10.)** An enclosed armored vehicle should be used to pull the trailer containing extremely /unsafe ammunition.

**(11.)** Do not use pivot or neutral steering.

**(12.)** Do Not transport items from other ammo transportation categories in the same area or vehicle

**(13.)** Ensure the route selection is considered in your planning and risk management process. All attempts should be taken to avoid populated areas.

#### **c. SAFE Ammo:**

**(1.)** Ammunition that has been determined Safe should be evaluated by qualified ammunition inspectors prior to issue for use. Safe only means that the ammo is safe to store and transport and does not imply it is safe for use. Items may have been altered or contain internal defects that effect its reliability.

**(2.)** If only small arms ammunitions of up to 50 cal or 12.7 mm are being collected and transported, a tactical truck may be used to move the small arms ammunitions to the CEA collection point or AHA.

**(3.)** Do Not transport items from other ammo transportation categories in the same area or



vehicle

## **4. VEHICLE SELECTION AND PREPARATION:**

Vehicle Selection and preparation is determined by the transportation category and packaging of ammo involved.

### **a. Prime Movers:**

**(1.)** Armored vehicles will be used to tow trailers containing Extreme/ Unsafe ammo. Ideally it should be a tracked armored vehicle, but whatever vehicle is used must be capable of being “buttoned up” to improve the driver’s survivability.

**(2.)** The best armored vehicle (ACV) for this job is the M113 family of vehicles (FOV). The basic A1 or A2 is preferred; the M113A3 FOV has rear fuel tanks to take into consideration. This vehicle should be used as the last choice.

**(3.)** The Bradley Fighting Vehicle (BFV) has been certified to safely tow only one trailer—the MCLIC trailer. However, if the BFV is used as a towing vehicle, recommend using the M105 or M101 trailers.

**(4.)** The Field Artillery Ammunition Supply Vehicle (FAASV), empty of any munitions, may be used as a towing vehicle.

**(5.)** Do not use the Abrams or M88 FOV due to the excessive heat from these vehicles’ exhausts

**(6.)** Do Not use any tactical wheeled Army motor vehicle for transportation of extremely/unsafe ammo. (e.g., HMMWV, M35 series, M800 series, M939 FOV, FMTV FOV, HEMTT, etc.). These vehicles do not provide the same armor protection for the crew as an armored combat vehicle.

**b. CEA support trailers**

**(1.)** No trailers in the Army inventory have been tested for this mission. The following information must be used in operational risk management.

**(2.)** There should be no electrical connection between the vehicle and trailer.

**(3.)** The trailer's floor and sides should be sandbagged. This will cause any small explosions to be directed upwards. Recommend the use of small trailers—1/4-ton M100, 3/4-ton M101, or 1 1/2-ton M105. Trailers should remain hitched to their prime movers.

**(4.)** Do not load the trailer and then hitch it to the vehicle.

**(5.)** If the CEA in the trailer begins to show signs of functioninG (smoke, flames, or detonations), DO NOT attempt to extinguish them. Abandon the vehicle! If you are unable to abandon the vehicle, button up.

**(6.)** Consider using webbing (like that used on

USAF 463L pallets) to put across the load once the trailer is full and dispatched from the collection point. The webbing will restrain the load if the vehicle must travel across rough terrain.

## **5. Preparation and Loading of CEA**

**a.** Block and brace packaged CEA so it cannot move during transportation. Ensure compatibility standards for transportation are observed.

**b.** CEA should always be transported in its original shipping container whenever possible.

**c.** Block and brace unpackaged CEA so it cannot move and impact other munitions during normal transportation. Use commonly available materials to chock the munitions and prevent movement. Always protect primers and fuzes with cushioning material such as cardboard.

**d.** Use empty ammo boxes lined with approximately 1 inch of sand. Place the munitions firmly in the sand, then place packing material in the box to prevent forward and backward movement. Do not use cardboard boxes to store CEA. The bottom may tear out causing the munitions drop and possibly detonate.

**e.** For large cylindrical objects, turn a pallet upside down. Place the object between the skids of the pallet. Run a web strap around the bottom of the pallet over the cylindrical objects.

**f.** Place recovered small arms munitions in M2A1 (50

cal) cans. Place small arms ammunitions items firmly into the sand bed in the boxes so the sand will form-fit to the items.

**g.** Use empty plastic water bottles as an air-filled cushioning material. Make sure the bottles are still soft and pliable (not hard and brittle). Screw the caps back on and use them to separate munitions during transport.

**h.** Sandbags are an ideal blocking and bracing material because they can be formed to fit around the munitions.

**i.** Unserviceable pallets can be disassembled with crowbars to obtain wood and nails. Use the wood to separate munitions items or to make space-filler boxes that will prevent the movement of items during transport. Always use cushioning material such as sandbags or cardboard to separate individual munitions.

**j.** Secure a piece of cardboard over the primers on tank and mortar rounds to protect primer from impact during transportation.

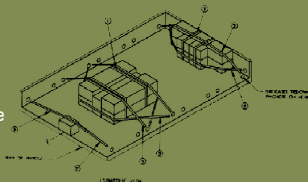
**k.** Secure loose safety pins and devices on rounds with 100-mile-an-hour tape.

**l.** Rip apart empty MRE boxes to make cardboard dividers and place between every two cylindrical projectiles so they do not impact each other during transport.

**m.** Do not block and brace with hazardous materials or items that can create an electrical charge. For

## Transport of Boxed CEA

Secure boxed CEA with web straps so it cannot move forward, backward, or side-to-side. Keep in mind that when stopping, the force acting on the boxes will try to move them forward.



## Transport of Unpacked

Cardboard dividers protect primers and fuzes



**BOX**

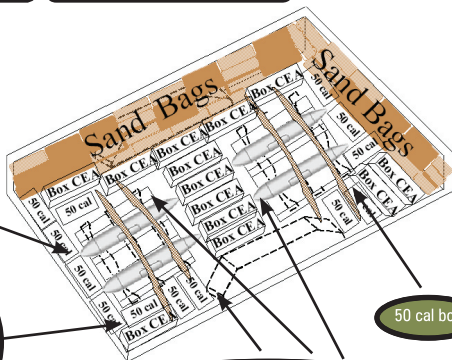
Sand-lined box

Cardboard dividers



Pallet  
upside  
down

Place large  
cylindrical object  
on upside-down  
pallet – use web  
straps to secure  
item.



Place the object between the skids  
of the pallet.

example, do not use a 5-gallon fuel can or an automotive battery as a blocker.

**n.** Cover the primers of large-caliber gun munitions with cardboard. Consider getting some empty wooden ammo boxes, i.e., 81 mm boxes, grenade boxes, or pyrotechnic boxes, and put a layer of sand in the bottom. Hollow out a space for the items, and place the items firmly into the sand so the sand will form-fit to the items.

## Initial Actions on Discovery of CEA

	ACTION	CONSIDERATIONS
	Take Booby-trap Precautions	If you see wires leading to the munitions, back away carefully. DO NOT TOUCH ANYTHING! Do not cut electrical wires or taut wires, and do not tighten slack wires. Mark, report and safeguard the area
	Make a tentative identification of the munitions	If positive identification and condition cannot be made or high risk munitions are found units should immediately request EOD support  Identify Munitions Type, QTY, Condition
	Submit Salute/SPOT Report	
	Request Disposition	Some munitions may have a predetermination disposition. For Example Small Arms, RPGS ETC.
	Request Disposition	
	Secure CEA	
	(Checklist 1)	

Unit Pre- Mission Preparation This should be accomplished for units that encounter or expect to encounter CEA. (IE . Patrols, Raids)

	ACTION	CONSIDERATIONS
	Identify Probable Ordnance to be Encountered	Historical Information from Prior missions in AOR Submit RFI to EOD or BN S2
	Conduct Munitions Identification and Handling Training	Training should Include: <ul style="list-style-type: none"> <li>• High Risk and Low Risk CEA identification and handling procedures</li> <li>• Ammo Handling Procedures</li> <li>• Ammo Transportation Procedures</li> <li>• Neutralize Booby Traps: Task# 051-193-1013</li> <li>• Recognize Military Ordnance by Type :Task # 093-403-5010</li> <li>• Take Immediate Action based on Confirmation of explosive hazard: Task # 093-403-5020</li> <li>• Report Explosive Hazard: Task # 093-403-5030</li> </ul>
	Predetermined Ammo disposition	List of munitions and disposition of each. (IE... RPGs, Small Arms ETC..)
	Determine and/or designate a safe disposal area	Identifying potential areas where Safe disposal of CEA can be conducted
	(Checklist 2)	



## CAPTURED ENEMY AMMUNITION DELIBERATE PLANNING CHECKLIST

	Conduct leaders recon	if possible
	Ensure soldiers are trained in Ordnance Identification, ammunition handling and transportation procedures	See Unit Pre-Mission Preparation
	Determine Type(s) and amount of CEA	
	Determine disposition of CEA.	Transport Dispose by Detonation(EOD Only) Mark and Leave In Place
	Determine/ Coordinate support requirements	Transportation / Medical EOD / Security QASAS / Linguist
	Determine and coordinate convoy route from CEA site to storage facility	
	Determine and coordinate for safe disposal area	
	Determine a communications plan that takes into account the 100m stand-off distance required for EMR sensitive CEA.	
	Conduct Risk Assessment / Risk Mitigation for the operation.	( See Example Worksheet)
	Develop Catastrophic event plan	This plan will outline what to do in the event of an accidental detonation. (Personnel accountability, rally point, MEDVAC procedures)
	(Checklist 3)	

## CAPTURED AMMUNITION EXECUTION CHECKLIST

	Conduct Pre-Combat Checks and Inspection.	
	Establish security perimeter	
	Conduct Communications check with higher HQ.	
	Establish safe area for medical and non-essential Personnel and equipment.	
	Conduct Safety Briefing	
	Verify type(s), amount and hazard condition of CEA.	
	Determine if additional support is required	
	Supervise the handling, packaging and loading of CEA	
	Inspect Blocking and bracing of CEA	
	Conduct Convoy briefing	
	Notify higher HQ when departing CEA site and arriving at authorized CEA storage site	
	(Checklist 4)	

# CHAPTER. 2

## MUNITIONS BUY BACK PROGRAM

Chp. 2

Munitions buy-back programs are inherently dangerous. This program must be carefully planned and executed by leaders at all levels. The buy-back program encourages local national to turn in arms or dangerous munitions which may be classified as Captured Enemy Ammunition (CEA), Unexploded Ordnance (UXO) or even Improvised Explosive Devices (IEDs).

# INTRODUCTION

US and Coalition forces have conducted buy-back programs in many theaters of operation to include Haiti, Kosovo, Bosnia, Afghanistan and now Iraq. Lessons learned from these buy-back program shows that they can be dangerous if not planned and executed properly. Numerous U.S. and Coalition injuries and deaths have occurred when untrained forces fail to recognize munitions hazards while executing these buy-back programs.

Leaders tasked to participate in buy back programs should understand the complexity and dangers of handling weapons and munitions turned in during Buy Back Programs. The monetary incentive associated with the buy back program may cause local nationals to disregard their own safety and turn-in unexploded or known unstable ordnance. These items may include improvised explosive devices (IED) which failed to function. Additionally terrorists or hostile militia may attempt to purposely introduce booby trapped items, improvised explosive devices, or Large Vehicle Improvised Explosive Devices (LVIED) to the turn-in point in order to hurt or injury US and coalition forces. Leaders must ensure that all necessary steps are taken to protect their forces and mitigate against the ever present dangers associated with buy back items and munitions.

# PURPOSE

To provide a quick procedural reference for commanders and leaders to safeguard personnel involved in structured buy-back programs.

# OBJECTIVES

1. Establishing proper procedures for execution of buy-back programs.
2. Educate and establish awareness of the hazards associated with munitions buy-back programs.

# REFERENCES

1. FM 21-16, Unexploded Ordnance(UXO) Procedures, 30 Aug 94
2. FM 4-30.13, Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers, 1 Mar 01
3. TC 20-32-5, Commander's Reference Guide, Land Mine and Explosives Hazards (Iraq), Feb 2003
4. DA Pam 385-64, Ammunition and Explosive Safety Standards. Dated 15 Dec 99
5. EOD TechDiv Iraq Ordnance ID Guide "Greenbook", Jan 2004 (Reference 5 may be obtained by contacting the EOD Technical Center, at DSN 354-6890 or (301)744-6890, or downloaded at <https://naveodtechdiv.navsea.navy.mil>)
6. Handbook of Ammunition Used in Afghanistan and Surrounding Areas. March 2002, REV 2
7. Handbook of Ammunition Used in Iraq and Surrounding Areas. May 2004, REV 2 References 6 & 7 may be obtained by submitting request form at [http://www.pica.army.mil/picaeod/new\\_page\\_6.htm](http://www.pica.army.mil/picaeod/new_page_6.htm) or by contacting the Foreign Ordnance Branch at DSN 880-7645 / Commercial 973-724-7645 or the following e-mail address [eodpubrequest@pica.army.mil](mailto:eodpubrequest@pica.army.mil).

# COMMANDERS CONSIDERATIONS

Buy back programs are a senior leader responsibility at all levels. Buy Back Programs are inherently dangerous and without proper planning and training; back programs are not worth the risk! Commanders accept extreme risk by conducting buy back operations without proper pre and post mission planning and training.

1. Leaders must involve EOD in the planning and execution of buy-back programs. EOD personnel are the only specialty trained to recognize and understand the hazards associated with fuzing systems of foreign munitions. They are the only qualified personnel to perform the initial assessment of buy back items and munitions.
2. **All munitions should be considered extremely dangerous.** Buy-back and turn-in programs may give local nationals incentive to pick up and turn in UXO or IEDs.
3. Terrorists or hostile militia may (and probably will) attempt to purposely introduce booby trapped items or improvised explosive devices to the turn-in point in order to hurt or injury US and coalition forces.
4. Initial assessment of munitions will be completed by EOD personnel only. Handling of munitions prior to EOD assessment will expose forces to unnecessary hazards.
5. Thorough risk assessment and management procedures are critical to mitigate the hazards associated with buy back operations.
6. Units tasked to conduct buy back operations must

ensure personnel are trained in buy back operations and adhere to strict safety standards.

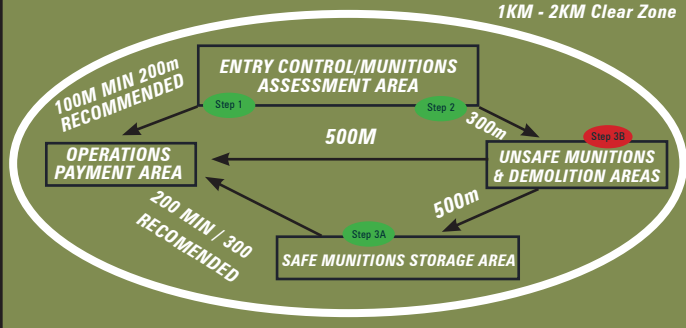
- 7.** All personnel participating in the buy back must wear full Personnel Protection Equipment (PPE) at all times.
- 8.** Incorporate an information campaign to inform locals on pay-back procedures and types of ammunition being bought. Use handbills, posters and voice communications. Additional instructions should be given for coordinating turn-in of large quantities or possible unstable items. On-site assessment of these items is recommended.
- 9.** Minimize personnel, resources, and time exposed to munitions acquired during the buy-back.
- 10.** Identify buy back munitions criteria to include items that are wanted for buy back and those that are not.
- 11.** Determine disposition of munitions and weapons collected. (IE will safe munitions be transported to CEA storage area or destroyed on site.)

## GENERAL REQUIREMENTS

The Buy back munitions area should meet minimum criteria outlined in order to safeguard military and the local nationals population as well as key infrastructure and equipment in the event of an explosive (or pyrotechnic detonation ) either accidental or deliberate.

## Munitions Buy-Back Program Area Set

1KM - 2KM Clear Zone



### BUY BACK AREA SET-UP CONSIDERATIONS

### BUY BACK STEPS

- Overall Buy Back areas should be 1to or 2 KM.
- Area should be flat and open to allow for 360 observation.
- Unsafe munitions/demolition area should be a min 500M from clear zone boundary, CP payment area, and Safe Munitions Holding Area.
- Entry control Munitions assesement area should be a minimum of 100M (200M recomended) from CP / Payment area.
- Safe Munitions storage area should be 200M (300M recommended) from OPS / Payment Area.
- Step 1 - Security, EOD, Interpreter are present, Security, Local National,

Interpreter move to Payment Area.

- Step 2 - The EOD Team assesses 1 Munitions, determine Munitions conditions, dteremines if Munitions move to a 3A or 3B. Note: Some items made be to hazardous for movement to demolition pit and must be blown in place.
- Step 3A - All Safe Munitions are moved to safe holding area awaiting disposition.
- Step 3B - All Unsafe Munitions wil be moved to unsafe ammo holding area / demolition pit (see movement requirements).



**1.** The Buy Back area should be located a minimum of 1000 meters (2000M Recommended) from:

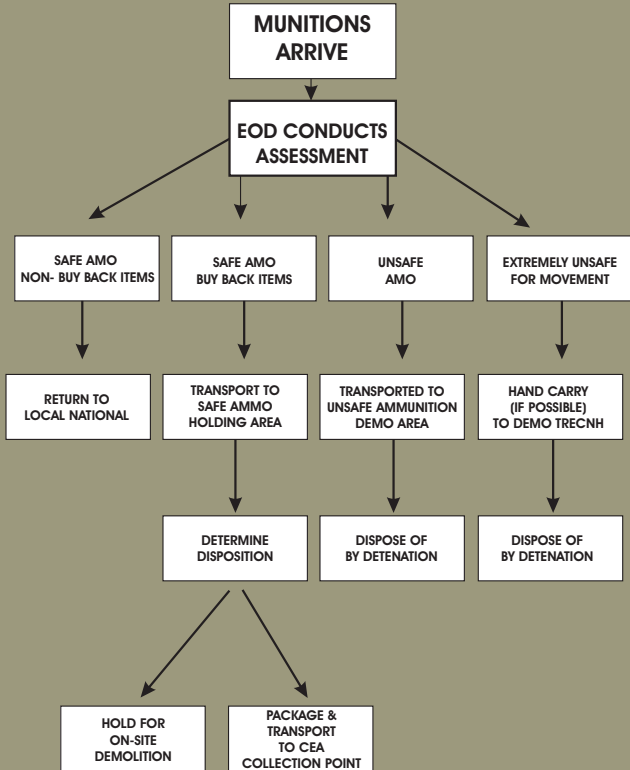
- Military or civilian personnel operations of any kind.
- Fuel or lubricant storage areas.
- Electricity Power lines and substations.
- Ammunition Storage Areas (Excluding those used as part of the buy back operations).
- Radio or Radar Transmitters.
- Underground pipelines.
- Troop or Local Staging or living areas.
- Public or Major Traffic Routes.
- Areas of congestion.
- Schools or hospital.
- Key facilities.

**2.** Area should be flat and open allow for 360 observation

**3.** The area must be manned by the minimum personnel required to safely accomplish the mission. A risk assessment must be accomplished to determine and establish the minimum personnel necessary to conduct the operations.

**4.** Expect local nationals turning in munitions to arrive from any direction. All personnel on-site should know the procedures and location of the entry control point.

**5.** Personnel manning must be closely monitored throughout operation to ensure that only the minimum personnel required to conduct operations are on site during operations.



**6.** Personnel working in the Buy Back area must be accounted for at all times. Personnel entering and exiting must be logged in and out.

**7.** Personal Protective Equipment (PPE) will be worn by all personnel at all times. PPE will include:

- Kevlar helmet.
- Ballistic goggles.
- Interceptor body armor w/SAPI plates (preferred) or flack vest.
- Gloves (Non-synthetic) During munitions handling only.

**8.** Personnel not involved in operations should be under cover at all times. An accidental detonation can occur at any time.

**9.** Local nationals turning in munitions must be controlled and escorted at all times.

**WARNING:**

THE ENTRY CONTROL  
POINT IS THE MOST  
LIKELY LOCATION TO  
HAVE AN ACCIDENT OR  
HOSTILE INCIDENT

## **ENTRY CONTROL/ MUNITIONS ASSESSMENT POINT (ECP)**

### **1. Equipment Requirement**

**a.** Armored Transport vehicle with trailer to move Unsafe munitions to unsafe ammo holding and demolition area. (See Transportation of Unsafe Ammo)

**b.** Vehicle and Trailer to move safe munitions to Safe Ammo holding area.

## **2. Personnel requirement:**

The entry control and assessment point (ECP) should be manned by

- a.** EOD Team ( Two personnel minimum)
- b.** Security personnel
- c.** Interpreter

## **3. Site Set-up /Considerations**

### **a.** The ECP should be located:

- A minimum of 100 meters (200M Recommended) from the Command and Payment Area.
- A minimum of 500M from the unsafe ammo storage and demo pit.
- A minimum of 300 meters from the Safe Ammo Storage Area.

### **b.** Establish a Emergency Demolition Pit. (SEE FIG 2)

Pit will be used to dispose of munitions items deemed unsafe to handle or transport to unsafe munitions and demolition area.

### **c.** The Emergency Demo Pit should:

- be 1-2 meters deep.
- be 10 meters in length.
- be at 1-2 meters wide.
- use excess dirt to form a barricade between troop area and the pit.
- have a gentle slope into the pit to allow personnel to enter the pit while carrying.

**d.** If pit cannot be dug then an above ground demo area must be constructed. EOD can determine requirements for above ground emergency demo area.

**e.** The flow of vehicles turning in munitions must be carefully monitored. Vehicles should be kept staggered. (50M MIN)

**f.** Extreme caution must be exercised with local nationals bringing items to the collection points. They should be separated from turn-in items as soon as possible to protect personnel from an unsafe or hostile act.

**g.** The munitions assessment area should be out of public view.

**h.** Prior to starting demolition operations all personnel in the Buy-Back should be accounted for and under cover.

## **COMMAND POST/ PAYMENT AREA**

### **1. Equipment Requirements**

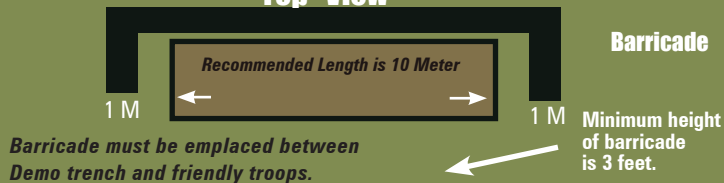
The minimum personnel protective equipment (PPE) required to safely conduct these operations are:

- Kevlar helmet
- Ballistic goggles
- Interceptor body armor w/SAPI plates (preferred) or flack vest

### **2. Personnel requirement:**

## Emergency Demo Pit Construction

### Top View



### Side View

Depth Min = 1 Meter  
Ideal = 2 Meter



Dig ditch so that slope is gentle enough to enter with CEA and UXO. Bottom of ditch should be flat and at least 3 feet wide and 3 to 6 feet below ground level. Use excavated soil to build barricade, and push from both sides to get maximum height.

The Command Post Payment Area should be manned by

- Security personnel
- C2 Personnel
- Interpreter
- MEDICS (IF Available)

### 3. Site Set-up / Considerations

- a. The CP/Payment Area should be located:
  - A minimum of 100 meters (200M Recommended)

from the Entry Control Point.

- A minimum of 500M from the unsafe ammo storage and demo pit.
- A minimum of 200M (300M Recommended ) meters from the Safe Ammo Storage Area.

- h.** Separate CP and Payment Facilities. Payment should not be conducted in the Command Post.

## **SAFE AMMO HOLDING AND PACKAGING AREA**

### **1. Equipment Requirements**

- a. See General Requirements 7.
- b. Material Handling Equipment (Forklifts)

### **2. Personnel requirement:**

The safe ammo holding and packaging area should be manned by

- Ammo handlers
- Security personnel

### **3. Site Set-up / Considerations**

- a. The Safe Ammo Storage Area should be located:
  - A minimum of 200 meters (300M Recommended) from the Operations and Payment Area.
  - A minimum of 500M from the unsafe ammo storage and demo pit.
  - A minimum of 300 meters from the Entry Control Point

**b.** Ammo Storage area should be large enough to allow for safe storage of Munitions. IAW DA Pam 385-64 for requirements.

## **UNSAFE AMMO HOLDING AND DEMO AREA**

### **1. Equipment Requirements**

**a.** Personnel protective equipment (PPE) required to safely conduct these operations are:

- Kevlar helmet
- Ballistic goggles
- Interceptor body armor w/SAPI plates (preferred) or flack vest
- Gloves (non-synthetic, to include liners)

**b.** Material Handling Equipment (Forklifts)

### **2. Personnel requirement:**

The safe ammo holding and packaging area should be manned by

- EOD Team
- Ammo handlers
- Security personnel

### **3. Site Set-up / Considerations**

**a.** The Unsafe Ammo Storage and Demolitions Area should be located:

- A minimum of 500 meters (300M Recommended) from the Operations and Payment Area.
- A minimum of 500M from the SAFE Ammo Holding and Packing area



- 300 meters from the Entry Control Point
- b.** Prior to starting demolition operations all personnel in the Buy-Back should be accounted for and under cover.
- c.** All other Buy-Back operations should be halted when demo operations are started.  
Only qualified EOD personnel or EOD-qualified contractors should be used to perform demilitarization or disposal actions for CEA or UXO. Demolition sites must be well planned and sited at safe distances at prescribed for intentional detonation criteria in DOD 6055.9-STD

## MUNITIONS PROCESSING PROCEDURES

### STEP 1 ENTRY CONTROL

- 1.** Local Nationals arriving with exchange items are greeted by Security Personnel and Interpreter.
- 2.** If munitions are hand carried to turn-in point:
  - a.** Have Local National move munitions immediately to the Emergency Demolitions Pit for assessment.
  - b.** After items are placed in pit EOD may need to ask some initial questions to help determine condition of munitions.
  - c.** Once EOD has completed questioning the local national and interpreter move with

**guard to Payment Area.**

**3.** If munitions arrive by vehicle:

- a. Have the operator turn off the vehicle and all occupants dismount from vehicle.**
- b. Have vehicle operator leave keys in the vehicle,**
- c. Have operator open all compartments (to include all doors, cargo areas, hood and inner compartments),**
- d. Have operator show EOD location of items for turn-in.**
- e. EOD may ask some initial questions to help determine condition of munitions.**
- f. Once EOD has completed questioning the local national and interpreter move with guard to Payment Area.**

## **STEP 2 EOD ASSESSMENT**

- 1.** EOD searches vehicle (if present)
- 2.** EOD assesses munitions and segregates munitions into four categories.

**a. Safe for transport and storage**

- b. Unsafe for off-site transport but safe for short-term storage awaiting demolitions**
- c. Extremely unsafe and or sensitive and require immediate demolition**
- d. Safe Munitions not include in Buy Back Criteria.**

**3.** EOD identifies and logs munitions to include their destination.

**4.** Move Safe munitions to the Safe Ammo Holding Area. (See Transportation of safe munitions procedures)

**5.** Safe munitions should be removed prior to handling unsafe items (if possible)

**6.** Move Unsafe munitions to the Unsafe Ammo / Demolition area. (See Unsafe Ammo transportation procedures)

**7.** Extremely unsafe or sensitive munitions will be destroyed in the Emergency Demo Pit .

**8.** Return safe items not included in the buy back program to the Local National when all other munitions are processed.

**9.** After munitions are cleared from the Assessment Area or destroyed the EOD log is turned in to the CP/Payment area to assist in payment procedures and to update on-site munitions inventory.

**10.** All items regardless of type and quantity should

be cleared from the assessment area prior to the next assessment.

### **STEP 3A: SAFE AMMO HOLDING AREA**

- 1.** Items are unloaded and segregated IAW DA PAM 385-64.
- 2.** Log Ammo into Ammo Storage Area
- 3.** Package items to be stored over 24 hrs should be packaged for storage or transportation
- 4.** Empty vehicles awaiting loading should be staged in the vehicle parking area until ammo is ready for loading/unloading. Only one vehicle should be loaded at a time.
- 5.** Logs all items out of Safe holding area
- 6.** Munitions should not be stored on vehicles in excess of 24 hours.
- 7.** Vehicle PMCS should not be conducted in the Ammo Holding area.

### **STEP 3B: Unsafe Ammo Holding / Demolition Pit**

- 1.** Download Ammunition into demolition pits.
- 2.** Logs all items to be destroyed.
- 3.** If munitions will be destroyed later the items will be guarded until the start of demo operations.
- 4.** Ensure all personnel in the buy back area are

accounted for and other operations are halted prior to starting demolition procedures.

**5. Perform Demolition operations**

Only qualified EOD personnel or EOD-qualified contractors should be used to perform demilitarization or disposal actions for CEA or UXO. Demolition sites must be well planned and sited at safe distances at prescribed for intentional detonation criteria in DOD 6055.9-STD

